

those on the abdomen, slightly enlarged at the tip. Mesothorax with rather prominent anterior angles, which are nearly right-angled. Wings wanting. Legs short, dark brown to black, except the tarsi which are brown; all tarsi armed with fairly prominent curved teeth. Spines on legs short and comparatively few in number, being most numerous on convex sides of femora.

Abdomen stout, broadly rounding from seventh segment to the tube. The third to eighth segments inclusive bear five or six spines on each side, forming a row extending well on to both dorsal and ventral surfaces. Nearly all abdominal spines enlarged at tip, except on the tube and some on the ninth segment. Color black, except tip of tube which is brown.

Described from five females taken among the leaves of the pine-cone gall on the willow, *Salix fluviatilis*, July 14, 1908. The salient features of this species, one or another of which readily distinguishes it from the majority of the other members of the genus, are the absence of wings, the color of the antennae, the paucity of conspicuous spines on the prothorax, and the fact that all the tarsi are armed.

Genus **ALLOTHRIPS** Hood (1908).

***Allothrips megacephalus* Hood.**

Male.—Newly discovered. Agrees well with the female, except in size, shape of abdomen, and in the fact that the fore tarsi are armed with a small curved tooth. Length of body .81 mm.; width of prothorax .21 mm.; width of mesothorax .21 mm.; width of abdomen .25 mm. Abdomen tapering gradually from third or fourth segment to the tube, not broadly rounded as in the female.

A single specimen taken with three females under the scales of bark of black ash, *Fraxinus nigra*, August 24, 1908. Both antennae lost beyond second segment. The definition of the genus will have to be emended by omitting the character "fore tarsi unarmed."

On Thysanoptera.

BY H. J. FRANKLIN, PH.D.

Of the Minnesota Agricultural Experiment Station, St. Anthony Park, Minn.

ALEURODOTHRIPS n. gen.

This name "White fly thrips" has reference to the fact that the type species is predaceous on the white flies of orange trees in Florida.

Head about as long as broad, with parallel cheeks; eyes

rather small and vertex between them elevated; mouth cone reaching nearly to the hind edge of the prosternum, the labrum blunt. Prothorax about two-thirds as long as the head, each angle bearing a knobbed spine. Fore femora of the male greatly swollen, each over one-half as wide as the head and



Fig. 1.—Left foreleg of *A. fasciapennis*, male, x 194.

bearing somewhat proximal of the middle on its inner (anterior) side a long, prominent, slightly curved projection. Each fore tibia of the male with three noticeable denticles or tubercles on its inner side. Fore tarsi of the female unarmed, those of the male with a strong tooth. Wings present in both sexes. Abdomen with a number of prominent knobbed spines on the sides, and with some of the dorsal segments bearing a pair of double curved spines.

This genus is erected for *Cryptothrips fasciapennis* Franklin (Proc. U. S. N. M., vol. xxxiii, p. 727, 1908, Pl. LXIV, figs. 12, 13). The species was originally placed in the genus *Cryptothrips* with considerable doubt, but, as I had only a single specimen to describe from, and that in rather poor condition, I decided it was best not to erect a new genus for it at that time. The male, however, has such remarkably distinct characters that the species cannot be considered to be even closely related, either to *Cryptothrips* or any other genus heretofore described.

I have carefully compared many females from Florida with the type specimen and have been unable to discover enough difference to even consider the Florida specimens as belonging to a distinct variety. The original description of the female should be amended and added to as follows:

Length 1.04-1.21 mm. (the type specimen was stretched to the point of tearing in mounting); width of head .169-.201 mm.; width of mesothorax .258-.33 mm.; greatest width of abdomen .34-.37 mm. General color yellowish brown (the type is slightly darker than the Florida specimens—probably because of its age) with the sixth abdominal segment dark brown—strikingly darker than the rest of the body, the head and prothorax light brown, with a slight tinge of red, darker than the rest of the body, except the sixth segment of the abdomen. By reflected light the hypodermal pigmentation with which the body is irregularly mottled is seen to be whitish or cream color. The last four segments of the abdo-

men, as seen by transmitted light, clear honey yellow. Femora and tibiae of fore legs usually shaded slightly with brownish yellow; the middle and hind legs nearly transparent, except the distal ends of the femora, these being rather strongly stained with light brown. The hind wings are colored much like the fore wings, though with the general color not as dark, and with the basal transparent cross-band much wider (in fact, the basal two-fifths of the wing is almost entirely transparent). The abdomen, when normally retracted, rather chunky and ovate in form.

I have deposited two females in the collection of the U. S. National Museum, one in the collection of the Minnesota Experiment Station, and one besides the type in the collection of the Massachusetts Agricultural College.

Male.—Length .95-1.03 mm.; width of head .15-.16 mm.; width of mesothorax .217-.258 mm. Colored in general much like the female, but with the sixth abdominal segment less strikingly darker than the rest of the body. The head very slightly narrower in front than behind. The abdomen widest at the base, being in that portion of about the same width as the metathorax, and narrowing rapidly toward the tube so as to be triangular in outline as viewed from above or below; the hind angles of most of the abdominal segments square and prominent and bearing one or two stout spines each. The very large fore femora give the male a striking appearance. The prothorax of the male is about four-fifths as long as the head, and the head is often so retracted into the prothorax that they seem to be of about equal length.

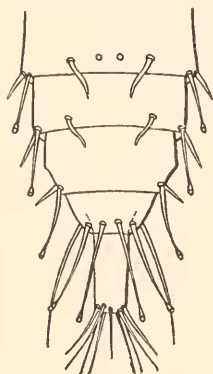


Fig. 2.—Dorsal view of end of abdomen of male, $\times 194$.

Described from three males (the co-types of this sex), one of which is deposited in each of the three following collections: United States National Museum, Massachusetts Agricultural College and Minnesota Agricultural Experiment Station.

I wish here to acknowledge my indebtedness to Dr. E. A. Back, from whom I received the specimens on which the above descriptions are based. This species was first observed to be associated with the citrus white fly (*A. citris*) by Dr. Morrill in 1906 in connection with the white fly investigation by the Bureau of Entomology of Florida, and has been observed many times in the act of feeding on the larvae, pupae and eggs of this pest fly by both Mr. Morrill and Dr. Bach. They

will make further mention on the habits of this thrips in a forthcoming bulletin of the Bureau of Entomology, U. S. Department of Agriculture.

NOTES ON OTHER SPECIES.

September 19, 1908, I found two females and two larvae of *Megalothrips* (?) *spinosus* Hood under the bark of a dead limb of white birch at St. Anthony Park, St. Paul. The two larvae were both considerably less than half grown and they were purplish red in color. On October 15, 1908, I also discovered a single female of *Trichothrips buffae* Hood at St. Anthony Park, under plum bark.

North American Heteroptera.

BY E. P. VAN DUZEE, Buffalo, New York.

These descriptions may be considered as a second installment of a paper by the same title published in the December, 1906, number of the ENT. NEWS, xvii, pp. 384-391. They represent new species which have come into my hands from various sources.

Thyreocoris montanus n. sp.

Size and general aspect of *lateralis*, but with a broader pale border to the corium. Pronotum more convex, with the lateral margins more rounded, thus giving the insect less of the appearance of being triangularly narrowed anteriorly which we find in the allied species; these margins entire and rounded below the humeri, not longitudinally impressed as in that species. Margins of the cheeks slightly sinuated, the tylus scarcely attaining the apex of the cheeks. In *lateralis* the tylus is distinctly longer than the cheeks, giving the head a more pointed appearance; whole surface closely punctured. Antennae pale, becoming dusky at apex. Legs piceous brown. Elytra: coriaceous portion white, with a black vitta which does not attain the tip. This black vitta is narrower than in *lateralis*, and at base is deflected along the inner margin; when the elytra are closed it conforms to the form of the scutellum leaving the white margin enlarged within and concentric with this scutellar margin which is not the case in *lateralis*. Length $3\frac{1}{2}$ -4 mm.

Described from numerous examples representing the following localities: Ogden, Utah, on the Wasatch Mountains (type locality); Provo and Parowan, Utah, Wickham; Wenatche, Washington, Wickham; Riverside, California, Cornell Univ. collection; and Klihatat V., Wyoming. Those from Ogden I